IN DATE/TIME: 03/25/92 08:49:03 (CONFIDENTIAL) CAR PROGRAM DIRECTION LETTER \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Approved 'ATUS:

LETTER:

P93ZA-109S2

CIORITY: Action Release

ISSUE DATE:

03/20/92

1993 MUSTANG "COBRA" (PREVIOUSLY "GT PLUS") PROGRAM IBJECT:

RLINES: Mustang(ZA-)

Post Job1 NOVEMBER, 1992

RIME CAUSAL: Product Feature/Appearance

C10174983 R/CR NO: IGR FUNDING: Base Budget PULL AHEAD TO PRIOR MYR: No

VIN AFFECTED: Yes

EMISSION AFFECTED: Yes PROTO MAT'L REQ'D: Yes

APPEARANCE AFFECTED: Yes

(Inc)/Dec \$(000) IVESTMENT:

3,800 TOOLING: \$ FACILITIES:

ENGINEERING:

4,000

PIECE COST: \$ WEIGHT(kilo):

(1bs):

and the second

COMPLEXITY (end items): RELIABILITY(12/12 R/100): TOTAL INVESTMENT: \$ 7.800\*

EFERENCE No. of New Tooled Parts = 31; CAFE effect = TBD Supports Confirmation Prototype MRD (2/92): Yes

Supports B&AO Functional Prototype MRD (2/24/92): Yes

{SUPERSEDES P93ZA-109S1} ENGR. FUNDING = Base Budget 1992;

Added Started 1991 for Vehicle Engineering. \* This Program Direction Letter is to authorize release of the

referenced components. However, it does not authorize engineering funding. Funding was APPROVED by Mr.A.J. Trotman at the 4/15/91 PCM

00.00 COMPLETE VEHICLE SYSTEM \*

s2 - issued to update program direction. Changes to original direction are noted with a change bar.

Vehicle name has been changed to "Cobra" (previously "GT Plus").

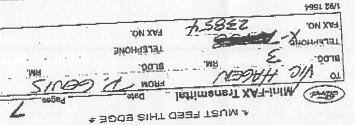
This Program Direction Letter is being issued to Auriorize release of the 1993 Mustang (ZA) "Cobra" (AACBL) Program that was Apro ved at the April 15, 1991 PCM. This program is piloting a new process, a Paer nership between Ford and ASC/Roush. The vehicle will be built at Dearborn Assembly Plant; however most of the engineering and design execution will be conducted by ASC/Roush. This letter does not authorize the release of funding to Product Engineering Offices. If you believe that your office is affected, please contact Janine Bay, extension 30744, for non-powertrain issues, and David Domine, pewertrain issues

The Cobra is a one-year Program (1993 model year only) with a projected volume of 5000 units. The Cobra is available only as a 3-dr hatchback (DA), based on the GT (AX) with the 5.0L engine and manual T50D transmission only.

REPARED BY:

J. M. BAY 30744

\*\*\*\*\*\*\*\*\* CHEDULE NO.: 7



03/06/92 V. RESSLER

. BILLINGTON 03/20/92 \*\*\*\*\*\*\*\*\*\*\* RETAIN UNTIL: 12/31/93

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00.00 COMPLETE VEHICLE SYSTEM \*

All content and options for the Cobra are common with the GT 5.0L Mustang except as noted in the body of this letter.

### 01.00 Body System

C/O GT 3-door hatchback including all exterior and interior trim except as noted with unique badging.

1993 parking brake retention brackets.

### 01.02 Front End Subsystem

The Cobra will use a GT front fascia modified above the bumper. DAP to punch a hole in the fascia for grille insert after paint. Fascia and grille insert to be painted at DAP. Fascia punch press, grille insert slave fixtures and reprogramming paint robot spray patterns are required. Insert to be held in place with backing plate similar to T'Bird bumper cornering lights. Horse emblem to replace Ford oval with unique fasteners.

#### Body Closures Subsystem 01.03

The Cobra will use a unique new liftgate with LX cylinders. Hole locations in liftgate are revised for new spoiler with center supports.

#### Interior Trim and Ornamentation 01.05

C/O GT interior trim and color.

Cobra badge on shifter bezel plate. Assembly to DAP.

#### Exterior Trim and Ornamentation 01.08

C/O GT bodyside moldings.

New floor side rocker moldings, front fender front lower moldings. Attaching brackets are c/o GT.

New rear deck spoiler (BPFAE).

Unique exterior badging. "Cobra" (word) left rear decklid, "Snake" emblem right and left fenders.

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#### 01.18 Paint

Color Selection is :

Ebony Solid C/C UAWAWHA (PNOAA, Teal Metallic C/C RAWCWHA (PNRAB)\*
EBUAXXA (PNEBG)

\*Revised color selection; Ref. Letter P93ZA-114, dated 2/7/92

#### 01.19 Bumpers

Use GT front fascia with new above the bumper insert.

New one-piece rear bumper cover incorporates rear extensions. New rear lower fascia metal support. Install similar to c/o two-piece GT support.

#### 03.00 Engine

Increased power output 5.0L SHP (VY) (Super High Performance) V8 engine. Increase to be 50 hp above the current 5.0L HO+ at 5200/5600 RPM B-curve.

GT40 cylinder heads.

Intake manifold upper & lower new cast design to incorporate 65mm throttle body and increased runner size. Casted in nomenclature top manifold - "5.0 Liter/Cobra" and "Snake" emblem.

Exhaust manifolds - C/O 5.0L HO+ Mustang. New decking bar.

# 03.04 Fuel Charging and Controls

Throttle body - new 65mm diameter body with bypass valve mounting provided.

C/O 7.5L fuel injectors -- 24 lbs/hr Part # F1TE-9F593DA

# 03.05 Accessory Drive

New diameter crankshaft pulley and water pump pulley (reduced 12 percent) and new belt.

# 03.07 Engine Ignition

change of spark plugs to accommodate GT-40 cylinder heads.

\* CHEDULE NO.: 7-2B Page 3 (continued) RETAIN UNTIL: 12/31/93 rATUS: Approved RIORITY: Action Release

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00.00 COMPLETE VEHICLE SYSTEM \*

# 03.08 Engine Emission Control

90 deg. bubbler type engine ventilation system to accommodate new cast intake manifold.

Exhaust gas recirculation; 5.0L HO+ sonic flow, internal to intake manifold.

### 03.09 Valve Train

Intake valve - new similar to C/O, 1.84" diameter, with new valve spring.

Exhaust valve - new similar to C/O, 1.54" diameter, with new valve spring.

New unique camshaft.

1.72 ratio roller rocker arms.
Rocker cover common with Ford of Australia 5.0L.

# 03.11 Engine Power Conversion

High silicone pistons, as incorporated in base 5.0L engine for 1993. Crankshaft - C/O except rebalance for new piston weight.

# 03.12 Air Charging

70mm mass air flow meter, F1SF-12B579-AA (c/o T-Bird Super Coupe).

# 03.13 Evaporative Emissions

New vacuum harmess to suit intake manifold.

# 03.14 Electronic Engine Control

C/O EEC-IV GU strategy with unique calibration.

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# 04.00 Suspension

Handling Suspension (DWAAB). Unique for Cobra.

(04.01) Front Suspension Downsized front stabilizer bar (from 33mm to 28-1/2mm). Front strut - Revised valving for improved NVH.

(04.02) Rear Suspension Use 2.3L LX rear springs (from 200/300 variable to 160 lb/in).

Rear shock absorbers - Revised valving for improved NVH.

Use 2.3L upper control arms for reduced rear axle compliance.

(04.04) Wheels and Tires

New 17"x 7.5"- (7) Spoke Directional Wheels, 4-bolt. (D2YEE). (unique left and right wheels).

New Center Cap with "No" ornamentation.

New Goodyear P245/45ZR17 BSW tires. (D3KTE)

Goodyear will make available a P245/45R17 89V Eagle M+S Note: snow tire in their aftermarket tire stores.

#### 05.00 Driveline

1987 Turbo Coupe axle assembly modified for Mustang suspension geometry changes to accommodate rear disc brakes with 3.08 limited slip axle. Includes bolt-on anti-moan brackets. Increased driveshaft slip yoke strength.

### 06.00 Brakes

Front brakes - revise front rotor hub for 19mm increased offset.

Rear brakes - use 1987 T'Bird Turbo Coupe rear disc brake components with new design bolt on anti-moan bracket.

Parking brake - C/O Mustang control. 1993 parking brake cable and bracket.

Revise diaphragm booster for mounting and package.

\* Page 5 (continued) RETAIN UNTIL: 12/31/93 CHEDULE NO.: 7-2B

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Revised T'Bird brake booster.

New master cylinder, prop value, brake tubes, brake cable clips, rear hose and bracket assembly.

Front Calipers - Painted Black Front Rotor Hub - Painted Black Rear Calipers - Painted Black Rear Rotor Hub - Painted Black

#### Transmission 07.00

Manual transmission only. T50D (RF) with phosphated coated gears and tapered bearings for increased engine torque.

#### 08.00 clutch

Upgraded clutch for increased engine torque. Ref: C10135070 Common with 5.0L.

#### 09.00 Exhaust

5.0L HO+ LX exhaust pipes revised for package requirements of new one-piece rear fascia. c/o four-catalyst system.

### 10.00 Fuel System

New MSS 110 L/Hr high flow capacity in tank fuel pump with C/O Mustang bracketry.

Speed control (GTDAB) not available with Cobra. 10.03

#### 11.00 Steering

Leather-wrapped steering wheel (GTAAE).

#### Radio 15.00

(IBAAT) Premium Audio Cassette (PAC); Electronic Premium AM/FM Radio/ Cassette w/Premium Sound and Clock is STANDARD equipment. -Reference: P93ZA-115, dated 2/7/92.

# Optional Radios:

(IDAAH) Super Sound System; [dealer installed], Requires (IBAAT) radio -Reference: P93ZA-115, dated 2/7/92.

(IBAAU) Electronic AM/FM Stereo-Compact Disc W/Clock and Premium Sound (IBAAA) Radio Delete (includes speakers)

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16.00 Body Vacuum

> New vacuum jumper from intake manifold to body mount vacuum distribution manifold.

17.00 Lighting

1985 SVO taillamp lenses. Carryover high mount stop lamp.

APPLICATIONS AFFECTED BY THE COMPLETE LETTER: CAR MOD ENGINE (code) TRANS (code) | CAR MOD ENGINE (code) TRANS (code) T5OD(RF) MUST DA 5.0SHP(VY)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* RETAIN UNTIL: 12/31/93